SEQUENCE LISTING

- (1) GENERAL INFORMATION:
 - (i) APPLICANT:
- (A) NAME: Commonwealth Scientific and Industrial Research Organisation
 - (B) STREET: Limestone Avenue
 - (C) CITY: Campbell
 - (D) STATE: ACT
 - (E) COUNTRY: Australia
 - (F) POSTAL CODE (ZIP): 2601
 - (A) NAME: Goodman Fielder Limited
 - (B) STREET: Level 42 Grosvenor Place
 - (C) CITY: Sydney
 - (D) STATE: NSW
 - (E) COUNTRY: Australia
 - (F) POSTAL CODE (ZIP): 2000
 - (A) NAME: Groupe Limagrain Pacific Pty Ltd
 - (B) STREET: Level 31, 1 O'Connell Street
 - (C) CITY: Sydney
 - (D) STATE: NSW
 - (E) COUNTRY: Australia
 - (F) POSTAL CODE (ZIP): 2000
 - (ii) TITLE OF INVENTION: Modified Proteins
 - (iii) NUMBER OF SEQUENCES: 26
 - (iv) COMPUTER READABLE FORM:
 - (A) MEDIUM TYPE: Floppy disk
 - (B) COMPUTER: IBM PC compatible
 - (C) OPERATING SYSTEM: PC-DOS/MS-DOS
 - (D) SOFTWARE: PatentIn Release #1.0, Version #1.30 (EPO)
- (2) INFORMATION FOR SEQ ID NO: 1:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 41 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: cDNA
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

GTCATGAGGC AACTAAACCC TTGCAGCCAA GAGTTGCAAT C

(2) INFORMATION FOR SEQ ID NO: 2:

	(i)	SEQUENCE CHARACTERISTICS: (A) LENGTH: 51 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear	
	(ii)	MOLECULE TYPE: cDNA	
	(xi)	SEQUENCE DESCRIPTION: SEQ ID NO: 2:	
GGAT	CCCT	AG ACCATACTCC ATATGCATGA AGCTTGTTGG GGGACTGGTT G	51
(2)	INFO	RMATION FOR SEQ ID NO: 3:	
	(i)	SEQUENCE CHARACTERISTICS: (A) LENGTH: 24 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear	
	(ii)	MOLECULE TYPE: cDNA	
	(xi)	SEQUENCE DESCRIPTION: SEQ ID NO: 3:	
CAAG	CTTG'	TA CCACTCCCAC CGCC	24
(2)	INFO	RMATION FOR SEQ ID NO: 4:	
	(i)	SEQUENCE CHARACTERISTICS: (A) LENGTH: 27 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear	
	(ii)	MOLECULE TYPE: cDNA	
	(xi)	SEQUENCE DESCRIPTION: SEQ ID NO: 4:	
CCAT	ATGC	AC CGCCAGGTGT CAGTCAC	27
(2)	INFO	RMATION FOR SEQ ID NO: 5:	
	(i)	SEQUENCE CHARACTERISTICS: (A) LENGTH: 21 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear	
	(ii)	MOLECULE TYPE: cDNA	

(Xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

GTCGGCAATG AAGATTGCAC C	21
(2) INFORMATION FOR SEQ ID NO: 6:	
 (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 24 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear 	
(ii) MOLECULE TYPE: cDNA	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:	
TCCAACTGCG TTCTCCTCTT GGCC	24
(2) INFORMATION FOR SEQ ID NO: 7:	
 (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 24 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear 	
(ii) MOLECULE TYPE: cDNA	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:	
GGATCCCTAG CTCCACTGAG ACTC	24
(2) INFORMATION FOR SEQ ID NO: 8:	
(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 33 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear	
(ii) MOLECULE TYPE: cDNA	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:	
TGCGCTCAAG CTTTAGGCAA TGAAGATTGC ACC	33
(2) INFORMATION FOR SEQ ID NO: 9:	
(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 30 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single	

(D) TOPOLOGY: linear	
(ii) MOLECULE TYPE: cDNA	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:	
CATACTCCAT ATGCAGCTCC ACTGAGACTC	30
(2) INFORMATION FOR SEQ ID NO: 10:	
 (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 24 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear 	
(ii) MOLECULE TYPE: cDNA	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:	
CAAGCTTACG ATGTTGCTGG CGGG	24
(2) INFORMATION FOR SEQ ID NO: 11:(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 29 base pairs(B) TYPE: nucleic acid	
(C) STRANDEDNESS: single (D) TOPOLOGY: linear	
(ii) MOLECULE TYPE: cDNA	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:	•
CCATATGCAC CAGTAATAGC CAATAGTGC	29
(2) INFORMATION FOR SEQ ID NO: 12:	
(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 23 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear	
(ii) MOLECULE TYPE: cDNA	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:	
CAACCATGTC CTGAACCTTC ACC	23
(2) INFORMATION FOR SEQ ID NO: 13:	

 (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 18 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear 	
(ii) MOLECULE TYPE: cDNA	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:	
TGGCTGTTGA GGTTGCAC 1	8.
(2) INFORMATION FOR SEQ ID NO: 14:	
 (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 140 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear 	
(ii) MOLECULE TYPE: cDNA	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:	
ATAGAATACA GCATGCTCCC GGCCGCCATG GCCGCGGGAT TGTCATGAGG CAACTAAACC	50
CTTGCAGCGT CCCCCAACAA GCTTCATGCA TATGGAGTAT GGTCTAGGGA TCCGGGTACC 12	20
GAGCTCGAAT TCGCCCTATA 1	1 C
(2) INFORMATION FOR SEQ ID NO: 15:	
(i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 20 amino acids(B) TYPE: amino acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear	
(ii) MOLECULE TYPE: peptide	
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:	
Met Arg Gln Leu Asn Pro Cys Ser Val Pro Gln Gln Ala Ser Cys Il 1 5 10 15	е
Trp Ser Met Val 20	

- (2) INFORMATION FOR SEQ ID NO: 16:
 - (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:	243	base	pairs

- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: cDNA
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:

CAAGCTTTGA AAGCCGCTAC TGCGACAGCA GCTGGATCAT TGCTTGTGCT ATCCGGACTA 60

ATACTAGCTG GCACAGTCAT AGCACTCACA GTGGCCACAC CAGTGCTAGT CATATTTAGC 120

CCAGTGCTAG TGCCAGCGGC CATAGCCCTA GCGCTAATGT CAGCAGGCTT TGTCACGTCA 180

GGCGGGCTGG GCGTGGCTGC GCTGAGCTCC TTTAGTGTGT TAGCCAATAC TGCCTGCATA 240

TGG 243

(2) INFORMATION FOR SEQ ID NO: 17:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 81 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17:

Gln Ala Leu Lys Ala Ala Thr Ala Thr Ala Gly Ser Leu Leu Val 1 10 15

Leu Ser Gly Leu Ile Leu Ala Gly Thr Val Ile Ala Leu Thr Val Ala 20 25 30

Thr Pro Val Leu Val Ile Phe Ser Pro Val Leu Val Pro Ala Ala Ile 35 40 45

Ala Leu Ala Leu Met Ser Ala Gly Phe Val Thr Ser Gly Gly Leu Gly 50 55 60

Val Ala Ala Leu Ser Ser Phe Ser Val Leu Ala Asn Thr Ala Cys Ile 65 70 75 80

Trp

(2) INFORMATION FOR SEQ ID NO: 18:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 477 base pairs

- (B) TYPE: nucleic acid(C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: cDNA
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 18:

ATGAGGCAAC TAAACCCTTG CAGCCAAGAG TTGCAATCAC CACAACAATC ATATCTGCCG 60
CAGCCATATC CACAAAACCC ATATCTACCG CAAAAACCAT TTCCAGTGCA GCAACCGTTT 120
CACACCCCC AACAATATTT CCCCTATCTA CCAGAGGAAT TGTTTCCCCA ATATCAAATA 180
CCAACCCCCC TACAACCACA ACAACCATTC CCCCAACAAC CACAACAACC TCTTCCTCGG 240
CCCCAACAAC CATTCCCCTG GCAACCACAA CAACCATTTC CCCAGCCCCA AGAACCAATT 300
CCCCAACAAC CATTCCCCTG GCAACCACAA CAACCATTTC CCCAGCCCCA AGAACCAATT 360
CAACAAATAA TTTTCCAGCA ACCCCAACAA TCATACCCTG TGCAACCTCA ACAGCCATTT 420
CCTCAACAAC CTCAACCAGT CCCCCAACAA GCTTCATGCA TATGGAGTAT GGTCTAG 477

- (2) INFORMATION FOR SEQ ID NO: 19:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 158 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: peptide
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 19:

Met Arg Gln Leu Asn Pro Cys Ser Gln Glu Leu Gln Ser Pro Gln Gln 1 5 10 15

Ser Tyr Leu Gln Gln Pro Tyr Pro Gln Asn Pro Tyr Leu Pro Gln Lys 20 25 30

Pro Phe Pro Val Gln Gln Pro Phe His Thr Pro Gln Gln Tyr Phe Pro 35 40 45

Tyr Leu Pro Glu Glu Leu Phe Pro Gln Tyr Gln Ile Pro Thr Pro Leu 50 55 60

Gln Pro Gln Gln Pro Phe Pro Gln Gln Pro Gln Gln Pro Leu Pro Arg
65 70 75 80

Pro Gln Gln Pro Phe Pro Trp Gln Pro Gln Gln Pro Phe Pro Gln Pro 85 90 95

Gln	Glu	Pro	Ile	Pro	Gln	Gln	Pro	Gln	Gln	Pro	Phe	Pro	Gln	Gln	Pro
	-		100					105					110		

- Gln Gln Pro Phe Pro Gln Gln Pro Gln Gln Ile Ile Phe Gln Gln Pro 115 120 125
- Gln Gln Ser Tyr Pro Val Gln Pro Gln Gln Pro Phe Pro Gln Gln Pro 130 135 140
- Gln Pro Val Pro Gln Gln Ala Ser Cys Ile Trp Ser Met Val
- (2) INFORMATION FOR SEQ ID NO: 20:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 338 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: cDNA
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 20:

AAGCTTCTAC CACTCCCACC GCCGTGGCTG TGACTTTCGA TCTGACAGCT ACCACCACCT 60

ACGGCGAGAA CATCTACCTG GTCGGATCGA TCTCTCAGCT GGGTGACTGG GAAACCAGCG 120

ACGGCATAGC TCTGAGTGCT GACAAGTACA CTTCCAGCGA CCCGCTCTGG TATGTCACTG 180

TGACTCTGCC GGCTGGTGAG TCGTTTGAGT ACAAGTTTAT CCGCATTGAG AGCGATGACT 240

CCGTGGAGTG GGAGAGTGAT CCCAACCGAG AATACACCGT TCCTCAGGCG TGCGGAACGT 300

CGACCGCGAC GGTGACTGAC ACCTGGCGGT GCATATGG 338

- (2) INFORMATION FOR SEQ ID NO: 21:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 112 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: peptide
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 21:

Ala Ser Thr Thr Pro Thr Ala Val Ala Val Thr Phe Asp Leu Thr Ala 1 5 10 15

Thr Thr Tyr Gly Glu Asn Ile Tyr Leu Val Gly Ser Ile Ser Gln 20 25 30

Leu	Gly	Asp	Trp	Glu	Thr	Ser	Asp	Gly	Ile	Ala	Leu	Ser	Ala	Asp	Lys
		35					40					45			

- Tyr Thr Ser Ser Asp Pro Leu Trp Tyr Val Thr Val Thr Leu Pro Ala 50 55 60
- Gly Glu Ser Phe Glu Tyr Lys Phe Ile Arg Ile Glu Ser Asp Asp Ser 65 70 75 80
- Val Glu Trp Glu Ser Asp Pro Asn Arg Glu Tyr Thr Val Pro Gln Ala 85 90 95
- Cys Gly Thr Ser Thr Ala Thr Val Thr Asp Thr Trp Arg Cys Ile Trp
 100 105 110

(2) INFORMATION FOR SEQ ID NO: 22:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 371 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: cDNA
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 22:

AAGCTTTCGG CAATGAAGAT TGCACCCCAT GGATGAGTAC TCTGATCACT CCACTCCCAA 60
GCTGCCGTGA CTATGTGGAA CAACAAGCAT GTCGCATCGA AACGCCCGGG TCGCCGTACC 120
TCGCCAAGCA GCAGTGCTGT GGGGAGCTTG CAAACATTCC GCAGCAGTGC CGATGCCAGG 180
CGCTGCGCTA CTTCATGGGG CCGAAGTCTC GTCCGGATCA GAGCGGCCTC ATGGAACTCC 240
CCGGATGCCC TAGGGAGGTG CAGATGGACT TCGTGAGGAT ACTCGTCACG CCGGGGTACT 300
GCAACTTGAC GACCGTTCAC AACACTCCGT ACTGCCTCGC TATGGAGGAG TCTCAGTGGA 360
GCTGCATATG G

(2) INFORMATION FOR SEQ ID NO: 23:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 123 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 23:

Ala Ile Gly Asn Glu Asp Cys Thr Pro Trp Met Ser Thr Leu Ile Thr 10
Pro Leu Pro Ser Cys Arg Asp Tyr Val Glu Gln Gln Ala Cys Arg Ile 25
Glu Thr Pro Gly Ser Pro Tyr Leu Ala Lys Gln Gln Cys Cys Gly Glu 45
Leu Ala Asn Ile Pro Gln Gln Cys Arg Cys Gln Ala Leu Arg Tyr Phe 50
Met Gly Pro Lys Ser Arg Pro Asp Gln Ser Gly Leu Met Glu Leu Pro 65
Gly Cys Pro Arg Glu Val Gln Met Asp Phe Val Arg Ile Leu Val Thr Pro Gly Tyr Cys Asn Leu Thr Thr Val His Asn Thr Pro Tyr Cys Leu 110

120

(2) INFORMATION FOR SEQ ID NO: 24:

115

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 123 amino acids

Ala Met Glu Glu Ser Gln Trp Ser Cys Ile Trp

- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 24:

Ala Ile Gly Asn Glu Asp Cys Thr Pro Trp Thr Ser Thr Leu Ile Thr 1 5 10 15

Pro Leu Pro Ser Cys Arg Asn Tyr Val Glu Glu Gln Ala Cys Arg Ile 20 25 30

Glu Met Pro Gly Pro Pro Tyr Leu Ala Lys Gln Glu Cys Cys Glu Gln 35 40 45

Leu Ala Asn Ile Pro Gln Gln Cys Arg Cys Gln Ala Leu Arg Tyr Phe 50 55 60

Met Gly Pro Lys Ser Arg Pro Asp Gln Ser Gly Leu Met Glu Leu Pro 65 70 75 80

Gly Cys Pro Arg Glu Val Gln Met Asn Phe Val Pro Ile Leu Val Thr 85 90 95 Pro Gly Tyr Cys Asn Leu Thr Thr Val His Asn Thr Pro Tyr Cys Leu 100 105 110

Gly Met Glu Glu Ser Gln Trp Ser Cys Ile Trp 115 120

- (2) INFORMATION FOR SEQ ID NO: 25:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 377 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: cDNA
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 25:

AAGCTTACGA TGTTGCTGGC GGGGGTGGTG CTCAACAATG CCCTGTAGAG ACAAAGCTAA 60
ATTCATGCAG GAATTACCTG CTAGATCGAT GCTCAACGAT GAAGGATTTC CCGGTCACCT 120
GGCGTTGGTG GAAATGGTGG AAGGGAGGTT GTCAAGAGCT CCTTGGGGAG TGTTGCAGTC 180
GGCTCGGCCA AATGCCACCG CAATGCCGCT GCAACATCAT CCAGGGGTCA ATCCAAGGCG 240
ATCTCGGTGG CATCTTCGGA TTTCAGCGTG ATCGGGCAAG CAAAGTGATA CAAGAAGCCA 300
AGAACCTGCC GCCCAGGTGC AACCAGGGCC CTCCCTGCAA CATCCCCGGC ACTATTGGCT 360
ATTACTGGTG CATATGG

- (2) INFORMATION FOR SEQ ID NO: 26:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 125 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: peptide
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 26:

Ala Tyr Asp Val Ala Gly Gly Gly Ala Gln Gln Cys Pro Val Glu
1 10 15

Thr Lys Leu Asn Ser Cys Arg Asn Tyr Leu Leu Asp Arg Cys Ser Thr 20 25 30

Met Lys Asp Phe Pro Val Thr Trp Arg Trp Trp Lys Trp Trp Lys Gly 35 40 45

Gly Cys Gln Glu Leu Leu Sj5 Glu Cys Cys Ser Arg Leu Gly Gln Met Sp7 Pro Gl Cys Gln Cys Arg Cys Asn Ile Ile Gln Gly Ser Ile Gln Gly Asp 80 Leu Gly Gln Gly Asp 80 Gln Gly Gly Ile Phe 85 Gly Phe Gln Arg Asp 90 Arg Ala Ser Lys Val Ile Gln Glu Ala Lys Asn Leu Pro Pro Arg Cys Asn Gln Gly Gly Pro Cys Asn Ile Pro Gly Thr Ile Gly Tyr Tyr Trp Cys Ile Trp